

Serial No.: 08/993,564

29 April 2003

Page 2

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A chimeric embryo comprising embryonic cells from a first animal species and ~~one or more~~ a second animal species, wherein said first animal species is a human, wherein said ~~one or more~~ second animal species is a non-human primate, wherein said embryonic cells are selected from the group consisting of blastomere cells, blastocyst cells, undifferentiated immortal cells, pluripotent cells, and totipotent cells, and wherein said embryonic cells of said first and said ~~one or more~~ second animal species remain attached to one another and cooperate in the formation of a further developing embryo.

Claim 2 (canceled).

Claim 3 (previously amended): The chimeric embryo according to Claim 1, wherein said undifferentiated immortal cells from said first animal species are embryonic stem cells.

Claim 4 (currently amended): The chimeric embryo according to Claim 1, wherein said embryonic cells from said first animal species are comprised of a mixture of said embryonic cells and ~~embryonic stem cells~~.

Claim 5 (canceled).

Claim 6 (currently amended): The chimeric embryo according to Claim 1, wherein said undifferentiated immortal cells from said ~~one or more~~ second animal species are embryonic stem cells.

Claim 7 (currently amended): The chimeric embryo according to Claim 1, wherein said embryogenic cells from said ~~one or more~~ second animal species are comprised of a mixture of said embryonic cells and ~~embryonic stem cells~~.

Claims 8-9 (canceled).

Claim 10 (currently amended): A cell line isolated from a chimeric embryo, said chimeric embryo comprising embryonic cells from a first animal species and ~~one or more~~ a second animal species, wherein said first animal species is a human, and wherein said ~~one or more~~ second animal species is a non-human primate, wherein said embryonic cells from said first animal species are selected from among the group consisting of: ~~embryonic cells~~, blastomere cells, blastocyst cells, undifferentiated immortal cells, pluripotent cells, and totipotent cells, and

Serial No.: 08/993,564

29 April 2003

Page 3

wherein said embryonic cells from said ~~one or more~~ second animal species are selected from among the group consisting of: ~~embryonic cells~~; embryonic stem cells, blastomere cells, blastocyst cells, undifferentiated immortal cells, pluripotent cells, and totipotent cells; wherein said cell line is immunologically ~~tolerant to said cells from~~ tolerated by said first and said ~~one or more~~ second animal species.

Claims 11-27 (canceled).

Claim 28 (currently amended): A chimeric embryo comprising embryonic cells from a first animal species and ~~one or more~~ a second animal species, wherein said first animal species is a human, and wherein said ~~one or more~~ second animal species is selected from among the group consisting of chimpanzee, baboon, rhesus monkey and macaque, wherein said embryonic cells are selected from the group consisting of blastomere cells, blastocyst cells, undifferentiated immortal cells, pluripotent cells, and totipotent cells, and wherein said embryonic cells of said first and said ~~one or more~~ second animal species remain attached to one another and cooperate in the formation of a further developing embryo.

Claim 29 (canceled).

Claim 30 (previously amended): The chimeric embryo according to Claim 28, wherein said undifferentiated immortal cells from said first animal species are embryonic stem cells.

Claim 31 (currently amended): The chimeric embryo according to Claim 28, wherein said embryonic cells from said first animal species are comprised of a mixture of said embryonic cells and ~~embryonic stem cells~~.

Claim 32 (canceled).

Claim 33 (currently amended): The chimeric embryo according to Claim 28, wherein said undifferentiated immortal cells from said ~~one or more~~ second animal species are embryonic stem cells.

Claim 34 (currently amended): The chimeric embryo according to Claim 28, wherein said embryonic cells from said ~~one or more~~ second animal species are comprised of a mixture of said embryonic cells and ~~embryonic stem cells~~.

Claims 35-58 (canceled).

Serial No.: 08/993,564

29 April 2003

Page 4

Claim 59 (currently amended): The chimeric embryo according to Claim 1, wherein said chimeric embryo is an aggregation of totipotent cells of said first animal species and said ~~one or more~~ second animal species, wherein said totipotent cells of said first and said second animal species are aggregated under conditions in which said totipotent cells remain attached to one another and cooperate to form a in the formation of a further developing embryo.

Claims 60-71 (canceled).

Claim 72 (previously added): The chimeric embryo according to Claim 1, wherein said chimeric embryo is propagated in culture for varying periods of time.

Claim 73 (previously added): The chimeric embryo according to Claim 1, wherein said chimeric embryo undergoes a series of developmental steps.

Claim 74 (cancelled).

Claim 75 (currently amended): The chimeric embryo according to Claim ~~4~~ 3, wherein said embryonic cells from said first and said ~~one or more~~ second animal species ~~develop cooperatively~~ cooperate in the formation of a further developing embryo.

Claim 76 (currently amended): The chimeric embryo according to Claim ~~4~~ 6, wherein said embryonic cells from said first and said ~~one or more~~ second animal species cooperate ~~to form said chimeric embryo~~ in the formation of a further developing embryo.

Claim 77 (currently amended): A chimeric embryo ~~comprised of~~ comprising human blastomeres or blastomeres and embryonic stem cells and non-human primate blastomeres or blastomeres and embryonic stem cells that ~~continues to develop through the embryonic stages of development~~ cooperate in the formation of a further developing embryo.

Claims 78-90 (canceled).

Claim 91 (currently amended): The chimeric embryo according to Claim 1, wherein said chimeric embryo is an aggregation of pluripotent cells of said first animal species and said ~~one or more~~ second animal species, wherein said pluripotent cells are aggregated under conditions in which ~~a viable embryo forms~~ said pluripotent cells cooperate in the formation of a further developing embryo.

Serial No.: 08/993,564

29 April 2003

Page 5

Claim 92 (currently amended): The chimeric embryo according to Claim 1, wherein said chimeric embryo is an aggregation of a mix of pluripotent cells and totipotent cells of said first animal species and said ~~one or more~~ second animal species, wherein said mix of pluripotent cells and totipotent cells are aggregated under conditions in which ~~a viable embryo forms~~ said mix of pluripotent cells and totipotent cells cooperate in the formation of a further developing embryo.

Claim 93 (new): The chimeric embryo of Claim 4, wherein said mixture comprises undifferentiated immortal cells which are embryonic stem cells.

Claim 94 (new): The chimeric embryo of Claim 7, wherein said mixture comprises undifferentiated immortal cells which are embryonic stem cells.

Claim 95 (new): The chimeric embryo of Claim 31, wherein said mixture comprises undifferentiated immortal cells which are embryonic stem cells.

Claim 96 (new): The chimeric embryo of Claim 34, wherein said mixture comprises undifferentiated immortal cells which are embryonic stem cells.

Claim 97 (new): The chimeric embryo according to Claim 28, wherein said chimeric embryo is an aggregation of totipotent cells of said first animal species and said second animal species, wherein said totipotent cells of said first and said second animal species are aggregated under conditions in which said totipotent cells cooperate ~~to form~~ in the formation of a developing embryo.

Claim 98 (new): The chimeric embryo according to Claim 28, wherein said chimeric embryo undergoes a series of developmental steps.

Claim 99 (new). The chimeric embryo according to Claim 30, wherein said embryonic cells from said first and said second animal species ~~develop cooperatively~~ cooperate in the formation of a further developing embryo.

Claim 100 (new): The chimeric embryo according to Claim 28, wherein said embryonic cells from said first and said second animal species cooperate ~~to form said chimeric embryo in~~ the formation of a further developing embryo.

Claim 101 (new): The chimeric embryo according to Claim 33, wherein said chimeric embryo is an aggregation of pluripotent cells of said first animal species and said second animal

Serial No.: 08/993,564

29 April 2003

Page 6

species, wherein said pluripotent cells of said first and said second animal species are aggregated under conditions in which ~~a viable embryo forms~~ said pluripotent cells remain attached to one another and cooperate in the formation of a further developing embryo.

Claim 102 (new): The chimeric embryo according to Claim 28, wherein said chimeric embryo is an aggregation of a mix of pluripotent cells and totipotent cells of said first animal species and said second animal species, wherein said mix of pluripotent cells and totipotent cells of said first and said second animal species are aggregated under conditions in which ~~a viable embryo forms~~ said mix of pluripotent cells and totipotent cells remain attached and cooperate in the formation of a further developing embryo.

Claim 103 (new): The chimeric embryo according to Claim 3, wherein said embryonic stem cells contains a transgene or a specific, targeted mutation or a genetic alteration.

Claim 104 (new): The chimeric embryo according to Claim 30, wherein said embryonic stem cells contains a transgene or a specific, targeted mutation or a genetic alteration.

Claim 105 (new): The chimeric embryo according to Claim 93, wherein said embryonic stem cells contains a transgene or a specific, targeted mutation or a genetic alteration.

Claim 106 (new): The chimeric embryo according to Claim 95 wherein said embryonic stem cells contains a transgene or a specific, targeted mutation or a genetic alteration.